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# OMG! Yet Another Animator

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# Why do we need another?

Minimal barrier to get an animation going

Tidefile -> Map Animation for key state variables (Stage, Flow, EC)

Performance is key when exploring years of data

Great for expert users and easy to access for casual users

# DSM2 Tidefile

Binary Output from DSM2 run (Hydro and Qual)

HDF5 Format (Everything is a multi dimensional table)

Store the snapshot of the state of the entire model as a slice in the table

Hydro tidefile contains information about stage, flow and area

Qual tidefile contains information about concentration of each constituent

Large files Hydro (7 GB) and Qual (1GB) for 25 year run.

# Comparison to DSS

DSS excels at time series storage because it stores data chunked by time for a location

HDF5 tidefile from hydro and qual store data chunked by location for a particular time

If HDF5 were to store data chunked by time as does DSS, access times would be similar

# Web Technologies

Lots of effort and development being spent by major companies

Browsers are becoming very powerful; even mobile browsers!

Technologies for are maturing for the browser Javascript, SVG, Web GL

Fast enough for large data sets ?

# Web pros and cons

Biggest pro is ease of use, just click and go

Biggest con is needs a server

# Solution

Used cloud technologies. Hurt by dependency on others and ongoing cost

Now using locally hosted server (Just another program running in the background)

Keeps all the control with us while leveraging the new technologies

Allows offline usage ( usable with degradation )

Easily shareable by opening up locally hosted server to public

# Demo

[DSM2 Map Animator](#)

# Final thoughts

Add more visualizations (Flow splits, Contours)

Add information from other files in a DSM2 run (Echo files, DSS files)

Add information from observed data